Notes on the New Formula Two Cars

THREE brand new designs appeared for the first round of the European Formula Two Championship, the Brabham BT30, the Lotus 59B and the Pygmée MDB12. In addition, there was a slightly altered Tecno. All four cars use the 1,600 c.c. Cosworth FVA engine, which itself has been revised for its third year of Formula Two racing.

Turning first to the new cars, the Brabham is a radical departure in appearance from the BT23 and BT23C models which have proved so successful, mainly in the hands of Rindt, since the inception of the present Formula in 1967. The chassis of the new Brabham is once again of tubular construction and bears many similarities to the earlier designs, although Ron Tauranac claims that the frame offers an increase of 50 per cent in stiffness. The rear suspension is the same as on last year's car, while at the front the chassis is narrower, although the wishbones are wider to give a similar track. The most obvious alteration is to the bodywork, which at first glance appears decidedly ungainly with its high cockpit sides, shovel snout and faired-in engine compartment. First impressions are even less favourable when one sees the bulging petrol tanks on each side of the car. There is no works or works-backed Brabham team this year, so the first two BT30s have been delivered to private owners, Ahrens and Westbury, the latter a recent graduate from Formula Three.

The Lotus is an even more interesting design. It is the first non-monocoque Formula Two car to be raced by the works since the beginning of the previous 1,000 c.c. Formula Two in 1964. Both cars are being run by Winkelmann Racing Ltd., the company for which Rindt has driven Brabhams so successfully during the past three seasons. The Lotus 59B is based directly on the Formula Three car designed and manufactured by Lotus Components Ltd. It features square-tube construction for ease of manufacture, and looks to be of conventional construction, although the front wishbones are wide-based, particularly the lower components. The bodywork is novel in so far as it revives the divided-nose idea last seen on Formula One Ferraris in 1962: it serves no useful purpose, but the car as a whole is squat and purposeful. Following principles set by Matra with the first MS7 in 1967, the Lotus designers have placed the dry sump oil tanks at the rear of the chassis. The mechanics report that this helps to keep the front of the car clean, as well as reducing the amount of plumbing, but that maintenance is hampered by the necessity of disconnecting so many more bolts and unions when access to the engine or gearbox is required.

The Pygmée MDB12 is the first Formula Two car from a French factory which for several years has built Formula Three cars both with monocoque and tubular frame chassis. Claimed to have the shortest chassis of all at present, the new car is based on a previous monocoque and built along the lines of the Matra, with which it shares inboard front springs, unlike either of its British rivals. Rear-mounted oil tanks, as on the Matra, were to prove the undoing of both Pygmées —which were driven by Offenstadt and Patrick Dal Bo—at the opening race of the European series in England when they blew most of their contents on to the track. They did not appear at Hockenheim, although entries had been received.

Apart from the B.M.W. or Ferrari teams, if you are intending to take Formula Two seriously, then a four-cylinder Cosworth FVA engine, based on the Ford block, is essential. Since the Argentine Temporada, work to improve power output has been in hand at Cosworth. Last year, the accepted figure for a Cosworth FVA was 220 b.h.p. With modified camshafts, altered port shapes, stronger connecting rods and four-into-one exhaust systems, power has been increased to approximately 235 b.h.p., a figure which represents nearly 150 b.h.p. per litre. All the works teams were using this new "9-series" engine at Thruxton, while several of the more significant private equipes had also been able to obtain examples.

The two Italian teams are using 1968 designs. The Tecno driven by Cevert is a last year's chassis with a narrowed rear track, but nothing has been done to reduce the strong castor designed into the front suspension. Driving a Tecno, therefore, is a very untidy business if one is to keep up with the Brabhams or Ferraris; blisters on hands are the trade-mark of a press-on Tecno driver.

The six-cylinder Ferraris are identical with those raced so successfully in South America during December. They have not yet repeated the form which convincingly won the Temporada for De Adamich, and at Thruxton were unable to better the times recorded last year by Rindt, who could not keep up with the red cars in Argentina.

Also at Thruxton were the two Lola-B.M.W.s for Siffert and Hahne. A new, British-designed, chassis is being constructed for B.M.W. at the Dornier aircraft factory, but was not ready for the first two races of the season. Like Ferrari, B.M.W. is concentrating on the European Championship for ungraded drivers. The four-valve engine with opposed exhausts is unchanged since the end of the previous season: it produces a competitive 225 b.h.p., but drivers Siffert and Hahne have each expressed their dissatisfaction with the 1967 Lola chassis. Hahne put up a good show at Hockenheim, where handling is unimportant.

Wings have become as much a part of the Formula Two scene as the wretched things are in Formula One. Most of the Brabhams at Thruxton carried the production fore and aft devices, as seen in the Argentine, although Westbury made his own wings, the rear component of which fell off in the race. The Ferraris used chassis-mounted wings with variable incidence operated by engine oil pressure, as seen on the Formula One car last year, while the B.M.W. team had equipped its two cars with electrically-operated movable wings behind the roll bar, as seen last year. The Lotus cars were using rear wings which had been designed for the monocoque Lotus 48: they were still painted in Gold Leaf colours, although the cigarette company will have nothing to do with Formula Two this year. At Hockenheim, wings are discarded. The straights are so fast that the drag slows the cars down too much to compensate for the road-holding advantage through the slower curves.

With so many new chassis, revived interest by Cosworth Engineering and the likelihood of something new from Ferrari, Formula Two promises yet again to provide excellent second-league racing on the Continent. To judge from the crowds at Thruxton on Easter Monday, it seems that a mistake has been made in denying British enthusiasts another opportunity of seeing this excellent racing.—M. G. D.

Brabham BT30 (left) and Lotus 59B (right) represent two different lines of thought in body design. Brabham drivers claim that the clean lines give the car extra top speed, but the Lotus is winning races without so much as a rear engine cover.